

Application No.: 10/695,167

Attorney Docket No.: MXIC 1518-2

In the Claims:

Claims 1-4 are pending in this application, and the status of each is listed below.

1. (Currently amended) A wave-shaped capacitor, formed over a base conductive layer, said base conductive layer over a base insulator layer on a die, the capacitor including:

a wave-shaped pattern in the base conductive layer comprising at least two adjacent trenches in the base conductive layer;

a multilayer structure contoured over the base conductive layer, the multilayer structure comprising:

a first metal plate layer in electrical contact with the base conductive layer;

an insulating layer over the first plate layer;

a metal second plate layer over the insulating layer; and

a interconnect layer over the multilayer structure, including at least one interconnection with the second plate layer.

2. (Original) The device of claim 1, wherein the at least two adjacent trenches are formed by a lithographic or direct writing process and the multilayer structure has a thickness along the sidewalls of the trench that is less than half of a minimum feature size of the lithographic or direct writing process.

3. (Currently amended) ~~The device of claim 1, wherein the base conductive layer and the first conductive layer are the same structure~~

A wave-shaped capacitor, formed over a metal base conductive layer, said base conductive layer over a base insulator layer on a die, the capacitor including:

a wave-shaped pattern in the metal base conductive layer comprising at least two adjacent trenches in the base conductive layer;

a multilayer structure contoured over the metal base conductive layer, the multilayer structure comprising:

Application No.: 10/695,167

Attorney Docket No.: MXIC 1518-2

a metal second plate layer over the insulating layer; and
a interconnect layer over the multilayer structure, including at least one
interconnection with the second plate layer.

4. (Currently amended) The device of claim 3, wherein the at least two
adjacent trenches are formed by a lithographic or direct writing process and
the multilayer structure has a thickness along the sidewalls of the trench that
is less than half of a minimum feature size of the lithographic or direct writing
process.